Overview of the Low-Carbon Fuel Standard Program

The California Air Resources Board's Low-Carbon Fuel Standard (LCFS) program aims to promote cleaner fuels and reduce the carbon intensity of transportation fuel to 10% below 2010 levels by 2020. The program establishes annual carbon intensity standards that decrease over time. ARB assigns each eligible fuel a carbon intensity by measuring the emissions associated with the full lifecycle of all fuels – including extraction, production, transportation and consumption. For example, electric vehicles do not have tailpipe emissions but the carbon intensity of electricity as a transportation fuel must account for any emissions associated with generating the power used to charge the vehicle batteries.

Fuels with carbon intensities lower than the annual standard create credits, and those with higher carbon intensities create deficits. Fuel suppliers in California must ensure all the fuel they sell in the state each year meets the annual standard; those with deficits can buy credits from other fuel providers. Rather than prescribing specific fuel types through regulation, the LCFS allows the market to select the most cost-effective way to meet the carbon intensity standard each year.

The LCFS is one of the main greenhouse gas reduction measures adopted to implement AB 32, the California Global Warming Solutions Act of 2006, which calls for the state to cut economy-wide GHG emissions to 1990 levels by 2020. It is also a key part of the other state programs aimed at reducing GHG and criteria pollutants from the transportation sector and achieving Governor Jerry Brown's goal of cutting petroleum use in the state in half by 2030. Over time, California's LCFS market may merge with developing ones in British Columbia, Oregon and Washington to help reduce emissions from the transportation sector along the whole Pacific Coast.

CPUC Proceedings

Under current LCFS rules, entities that produce transportation fuels with carbon intensities lower than the standard can voluntarily opt-in to the program to generate credits, which they can sell to producers of higher carbon intensity fuels. The ARB requires electric distribution utilities that opt in to the program to use any proceeds from selling their LCFS credits for the benefit of customers that drive electric vehicles.

ARB calculates the number of credits associated with customers' electric vehicle charging using a standard methodology for all electric utilities. The credits associated with natural gas utilities' customers depends on the makeup of the gas – some renewable natural gases from bio-methane earns more LCFS credits than fossil compressed natural gas (CNG), for example.

The CPUC issued a decision in December 2014 (D. 14-12-083, in rulemaking R.11-03-012) approving programs that allow the investor-owned power and gas utilities to participate in the LCFS program on behalf of their residential customers. The utilities can receive credits for the electricity sold as fuel to customers that drive plug-in hybrid, fully-electric or natural gas-fueled vehicles. But the utilities are required to return the value of those credits back to the customers participating in their LCFS programs. Each utility is developing a different program to return the value of the earned LCFS credits to its customers:

SDG&E Electric Vehicle Climate Credit Program

Eligible customers can receive an annual credit of up to $50-$100 on their electric bill each year until the funding period ends in 2020. The actual credit will vary depending on the number of customers enrolled and the value of LCFS credits each year. Applications for the 2017 program began in February 2017 and run until May 31, 2017. Enrolled customers should see their first credits no later than September 2017. Customers interested in participating will have to re-enroll each year to receive credits.

PG&E Clean Fuel Rebate

PG&E will give customers with compressed natural gas (CNG) vehicles an annual rebate on their bills starting in 2017. The amount of the rebate will vary based on the value of the LCFS credits PG&E sells and the number of customers that have CNG vehicles.

Southern California Gas

SoCalGas is developing a program that will apply to the CNG fueling stations in both its and SDG&E's service territories. It should be in place in mid- to late-2017. Once the program is established, the revenue both utilities receive from selling their natural gas LCFS credits will be applied to reduce the rates paid by customers using the utilities' CNG stations.

Regulatory history

A May 2014 decision (D.14-05-012, D.14-07-003) authorized utilities to sell LCFS credit and a December 2014 decision (D.14-12-083) established the framework for the utilities' LCFS programs. Utilities are required to report the revenue of their sales of LCFS credits at least quarterly to the CPUC and provide an annual report estimating the number of LCFS credits they expect to earn and sell each year and the estimated revenue they will be returning to customers with electric vehicles.

Under that decision, electric utilities can return the value of their LCFS credits to customers by:

1) Reducing the purchase costs of PEVs through rebates or other incentives, or
2) Providing an annual credit on electric bill of customers with electric vehicles

Electric utilities must also educate the public on benefits of transportation electrification and provide rate options that encourage off-peak charging.

Natural gas utilities can return the value of their LCFS credits to customers by:

1) Reducing the price of CNG at utility-owned public stations
2) Providing an on-bill annual credit for residential customers with natural gas vehicles